

Glossary

Abiotic The nonliving material components of the environment such as air, rocks, soil particles, inorganic compounds, coal, peat, plant litter, etc. (1)

Activity A measure, course of action, or treatment to directly or indirectly produce, enhance, or maintain forest and rangeland outputs or to achieve administrative or environmental quality objectives. (18)

Activity Fuel Fuel resulting from, or altered by, management practices such as timber harvesting, thinning, or road construction. (FSM 5105)

Adaptive Management The process of implementing policy decisions incrementally, so that changes can be made if the desired results are not being achieved. It is a process similar to a scientific experiment in that predictions and assumptions in management plans are tested and experience and new scientific findings are used as the basis to improve resource management practices and future planning. (18)

Age Class A distinct aggregation of trees originating from a single natural event or regeneration activity, or grouping of trees, e.g. 10-year age class, as used in inventory or management. (20)

Allowable Sale Quantity The amount of chargeable timber volume which can be sold from a plan area for a decade cannot exceed the allowable sale quantity standard established for the plan area. Each Forest Plan which provides for a timber sale program must establish a standard setting the allowable sale quantity. The allowable quantity is a ceiling; it is not a future sale level projection or target and does not reflect all of the factors that may influence future sale levels. (18)

Animal Unit Month (AUM) The amount of forage required by a one thousand (1,000) pound cow, or the equivalent, for one month. (18)

Aquatic Ecosystem Waters of the United States, that serve as habitat for interrelated and interacting communities and populations of plants and animals. (40 CFR 230.3) Waters of the United States, including wetlands, that serve as habitat for interrelated and interacting communities and populations of plants and animals. (FSM 2526.05)

Artificial Regeneration (Reproduction) An age class created by direct seeding or by planting seedlings or cuttings. (20)

Attitudes, Beliefs and Values Preferences, expectations and opinions people have for forests and the management and use of particular areas. Differing values and expectations have resulted in polarized perceptions that a healthy environment requires protection of lands from human influence, or increased attention to environmental quality presents a threat to employment, economy or life-style. (32)

Basal Area The area of the cross section of a tree stem, including the bark, generally at breast height (4.5 feet above the ground). (20)

Best Management Practices Known as BMPs, they are methods, measures, or practices selected by an agency to meet its nonpoint pollution source control needs. Such practices

include, but are not limited to, structural and nonstructural control, standard operating procedures, and required maintenance procedures. They can be applied before, during, and after pollution-producing activities to reduce or eliminate the introduction of pollutants to a waterway. (18)

Biological Diversity The variety of life forms and processes within an area. Included in the consideration of diversity are the complexities of genetic variation, number and distribution of species, and the ways in which the variety of biologic communities interact and function. (18)

Biotic All the natural living organisms in a planning area and their life processes. (1)

Board Foot A unit of measure represented by a board 1 foot square and 1 inch thick. (18)

Candidate Species A species being considered for listing as a federally endangered or threatened species. (15) (28)

Canopy The foliar cover if a forest stand consisting of one or several layers. (20)

Canopy Closure see Crown Cover

Capability The potential of an area of land to produce resources, supply goods and services, and allow resource uses under an assumed set of management practices and at a given level of management intensity. (11) (28)

Catastrophic Fire A fire which has significant negative impacts on the health and productivity of ecosystems and other human values. (18)

Chaparral Forests of heavily branched, dwarfed trees or shrubs, usually evergreen, the crown canopy of which at maturity covers more than 50% of the ground and whose primary value is watershed protection. The more common chaparral constituents are species of *Quercus*, *Cercocarpus*, *Garrya*, *Ceanothus*, *Arcotostaphylos*, and *Adenostoma*. Types dominated by such shrubs as *Artemisia*, *Chrysothamnus*, *Purshia*, *Gutierrezia*, or semidesert species are not commonly considered chaparral. (37)

Chargeable Volume All volume included in the growth and yield projections for the selected management prescriptions used to arrive at the allowable sale quantity, based on regional utilization standards. Consistent with the definition of timber production, planned production of fuelwood is not included in the allowable sale quantity and therefore is nonchargeable. (19)

Classification The assignment of points, or sample units, to a finite number of discrete types, usually based on an analysis of many variable (e.g., vegetation classification, soil classification). (22)

Clean Air Act An Act of Congress established to protect and enhance the quality of the Nation's air through air pollution prevention and control. (18)

Clean Water Act An Act of Congress which establishes policy to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. (18)

Clearcutting, Clearcutting With Reserves see Regeneration (Reproduction) Method

Climate Generalized statement of the prevailing weather conditions at a given place, based on statistics of a long period of record. Includes seasonality of temperature and moisture. (22)

Climax Community The final or stable biotic community in a developmental series (sere); it is self-perpetuating and in equilibrium with the physical habitat. (1) (5)

Commercial Forest Land Forest land that is producing, or is capable of producing, crops of industrial wood and (a) has not been withdrawn by Congress, the Secretary, or the Chief; (b) existing technology and knowledge is available to ensure timber production without irreversible damage to soils productivity, or watershed conditions; and (c) existing technology and knowledge, as reflected in current research and experience, provides reasonable assurance that adequate restocking can be attained within 5 years after final harvesting. (19)

Common Variety Minerals Category of minerals including varieties of sand, gravel, stone, pumicite, cinders, pumice (except that occurring in pieces over 2 inches on a side), clay, and petrified wood; authorized under the 1947 Materials Act and the 1955 Multiple Surface Use Act for sale as "salable minerals". (FSM 2800)

Community An aggregation of living organisms having mutual relationships among themselves and to their environment (2)

Community Cohesion the degree of unity and cooperation between community groups. (32)

Community Stability whether a community can absorb social change. (32)

Composition The constituent elements of an entity, e.g., the species that constitute a plant community. (22)

Confine a Fire To limit fire spread within a predetermined area principally by use of natural or preconstructed barriers or environmental surveillance under appropriate conditions. (FSM 5105)

Connected Disturbed Area High runoff areas like roads and other disturbed soils that discharge surface runoff into a stream or lake. Such areas that do not discharge onto a stream or lake are not connected disturbed areas. (36)

Connectivity Condition in which the spatial arrangement of land cover types allows organisms and ecological processes (such as disturbance) to move across the landscape. Connectivity is the opposite of fragmentation. (22) (28)

Conservation The careful protection, utilization and planned management of resources to prevent their depletion, exploitation, destruction, or waste. (25) (28)

Consultation A formal interaction between the U.S. Fish and Wildlife Service and another federal agency when it is determined that the agency's action may affect a species that has been listed as threatened or endangered or its critical habitat. (28)

Contain a Fire To surround a fire, and any spot fires therefrom with control line as needed, which can reasonably be expected to check the fire's spread under prevailing and predicted conditions. (FSM 5105)

Control a Fire To complete the control line around a fire, any spot fires therefrom, and any interior islands to be saved; to burn out any unburned area adjacent to the fire side of the control line and to cool down all hot spots that are immediate threats to the control line, until the line can reasonably be expected to hold under foreseeable conditions. (FSM 5105)

Coppice, Coppice With Reserves, Coppice Method see Regeneration Method

Corridor A linear strip of land which has ecological, technical, economic, social, or similar advantages over other areas for the present or future location of transportation or utility rights-of-way within its boundaries. (11) (28)

Corridors, Landscape The landscape elements that connect similar patches through a dissimilar matrix or aggregation of patches. (4)

Cover Vegetation used by wildlife protection from predators, or to mitigate weather conditions, or to reproduce. May also refer to the protection of soil and the shading provided to herbs and forbs by vegetation. (28)

Critical Habitat Under the Endangered Species Act, critical habitat is defined as 1) the specific areas within the geographic area occupied by a federally listed species on which are found physical and biological features essential to the conservation of the species, and that may require special management considerations or protection, and 2) specific areas outside the geographic area occupied by a listed species, when it is determined that such areas are essential for the conservation of the species. (28)

Crown The part of a tree or woody plant bearing live branches and foliage. (20)

Crown Cover The ground area covered by the crowns of trees or woody vegetation as delimited by the vertical projection of crown perimeters and commonly expressed as a percent of total ground area (synonym CANOPY COVER). (20)

Crown Thinning see Thinning

Cubic Foot A unit for measuring wood equivalent to a cube with 12-inch sides. (18)

Culmination of Mean Annual Increment (CMAI) The age at which the average annual growth is greatest for a stand of trees. Mean annual increment is expressed in cubic feet measure and is based on expected growth according to the management intensities and utilization standards assumed in accordance with 36 CFR 219.16(a)(2)(i) and (ii). Culmination of mean annual increment (CMAI) includes regeneration harvest yields and any additional yields from planned intermediate harvests. (19)

Cultural Resource The remains of sites, structures, or objects used by humans at least fifty (50) years ago (historical), or predating the European entrance (archaeological). (18)

Cumulative Effects Analysis An analysis of the effects on the environment which results from the incremental impact of a proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions (40 CFR 1508.7). (2) (22)

Cutting Cycle The planned interval between partial harvests in an uneven-aged stand (see Thinning Interval). (20)

Defoliators Insects that feed on foliage and act to remove some or all of the foliage from a tree, shrub, or herb. (28)

Desired Condition Also referred to as: Desired Future Condition or Desired Ecological condition. A portrayal of the land or resource conditions which are expected to result if goals and objectives are fully achieved. (draft regulations at 36 CRF part 219).

Detrimental Soil Compaction A 15 percent (%) increase in bulk density from the average density; or bulk density that exceeds: 1.25 g/cc for silt and clay; 1.30 g/cc for silty clay, silty clay loam and silt loam and clay loam; 1.50g/cc for sandy loam, sandy clay loam, and sandy clay; and 1.60 g/cc for sand and loamy sand. (R2 FSH 2509.18-92-1)

Detrimental Soil Displacement The removal of soil from a continuous area of 100 square feet or more. (R2 FSH 2509.18-92-1)

Detrimental Soil Erosion The general loss of soil from the soil surface (sheet erosion); or erosion channels greater than one inch deep (rills and gullies). (R2 FSH 2509.18-92-1)

Dispersal The movement, usually one way and on any time scale, of plants or animals from their point of origin to another location where they subsequently produce offspring. (28)

Disturbance A discrete event, either natural or human induced, that causes a change in the existing condition of an ecological system. (21)

Diversity, Compositional The variation in types of landscape elements or vegetation types, their relative proportions within the landscape, their degree of rarity or commonness. (4)

Diversity, Process Relates to the variety of landscape flows, functions and processes present. (4)

Diversity, Structural The variation in sizes and shapes of landscape elements, as well as diversity of pattern (heterogeneity). (4)

Dynamic Equilibrium The precept that attributes of a land unit or stream show continual adjustment among forms and processes and vary in a balanced range about an average over a period of years in between episodic "reset" events. (36)

Ecological Approach Natural resource planning and management activities that assure consideration of the relationship between all organisms (including humans) and their environment. (21)

Ecological Process The actions or events that link organisms (including humans) and their environment, such as disturbance, successional development, nutrient cycling, carbon sequestration, productivity, and decay. (21)

Ecological Unit A mapped landscape unit designed to meet management objectives, comprised of one or more ecological types. (3)

Ecology From Greek oikos, meaning "house" or "place to live;" literally the study of organisms at home. Also, the science of the interrelationships of organisms or group of organisms with their environment. (2)

Economic Efficiency The usefulness of inputs (costs) to produce outputs (benefits) and effects when all costs and benefits that can be identified and valued are included in the computations. Economic efficiency is usually measured using present net value calculations. The use of benefit/cost ratios, incremental analysis, and rates of return may also be appropriate measures. (18)

Ecoregion A continuous geographic area over which the macroclimate is sufficiently uniform to permit develop of similar ecosystems on sites with similar properties. Ecoregions contain multiple landscapes with different spatial patterns of ecosystems. (21)

Ecosystem A community of living plants and animals interacting with each other and with their physical environment. A geographic area where it is meaningful to address the interrelationships with human social systems, sources of energy, and the ecological processes that shape change over time. (18)

Ecosystem Composition The constituent elements of an ecosystem; for example the plant species within an ecosystem. (18)

Ecosystem Function The flow of mineral nutrients, water, energy, or species within an ecosystem. (18)

Ecosystem Functions, (Processes) The major processes of ecosystems that regulate or influence the structure, composition and pattern. These include nutrient cycles, energy flows,

trophic levels (food chains), diversity patterns in time/space development and evolution, cybernetics (control), hydrologic cycles and weathering processes. (2)

Ecosystem Health An ecosystem in which the structure, composition, and function ensure the maintenance of biological diversity, biotic integrity, and ecological processes over time. (18)

Ecosystem Management The management of natural resources to maintain or restore the sustainability of ecosystems, thereby providing multiple benefits to present and future generations. (18)

Ecosystems Approach The "system" in ecosystem embodies three fundamental concepts: designating the physical boundary of the system and its parts; understanding the interactions of the parts as a functioning whole; and understanding the relation between the system and its context. We define "context" to mean both the external factors that influence the system and also internal information that must be synthesized to be understood at the scale of the defined system. For a continental ecosystem, global air pollution and population growth are examples of external context and local political processes and endangered species are examples of internal context. (23)

Edaphic Of or pertaining to the soil; resulting from or influenced by factors inherent in the soil or other substrate, rather than by climatic factors. (14)

Effective Ground Cover All living and dead herbaceous and woody materials in contact with the ground and all rocks greater than 3/4 inch in diameter. (FSH 2509.18)

Elk use potential A scaled representation of maximum possible use by elk. (16)

Endangered Species Any species of animals or plants listed as "endangered" by the U.S. Fish and Wildlife Service and in danger of extinction throughout all or a significant part of its habitat. (18)

Endangered Species Act An act of Congress which sets a policy for conserving species (and their critical habitat) of fish, wildlife, and plants that are in danger of or threatened with extinction. The Act also sets forward procedures for implementation. (18)

Endemic (n. Endemism) Restricted to a specified region or locality. (15)

Environment All the biotic and abiotic factors of a site. (6)

Environmentally Acceptable Commodity Production The management and production of desired yields of natural resources while meeting standards for protection of environmental values, including guidelines for management practices and aesthetic conditions. (2)

Ephemeral Stream Channel Streams that contain running water only sporadically, such as during and following storm events. (28)

Equilibrium Oscillation around a central position; e.g., condition in which the relative frequency and spatial pattern of land cover types remain relatively constant over a specified period of time. (22)

Even-aged Management The application of a combination of actions that results in the creation of stands in which trees of essentially the same age grow together. Regeneration in a particular stand is obtained during a short period at or near the time that a stand has reached the desired age or size for regeneration, and is harvested. (33)

Even-Aged Methods See Regeneration Method.

Even-Aged Stand A stand of trees containing a single age class in which the range of tree ages is usually less than 20 percent of rotation. (20)

Even-Aged System A planned sequence of treatments designed to maintain and regenerate a stand with one age class. The range of tree ages is usually less than 20 percent of the rotation (see Clearcutting, Seed Tree, Shelterwood, Coppice).

Exotic Species Species which occur in a given place, area, or region as the result of direct or indirect, deliberate or accidental introduction of the species by humans, and for which introduction has permitted the species to cross a natural barrier to dispersal. (15)

Extent The breadth of a study area, a map, or the length of a time series. (22)

Extinct No longer existing. (15)

Extirpation - The elimination of a species from a particular area. (28)

Farm Bill 1990 Farm Bill is the common name for a collection of Acts passed by the 101st Congress in 1990 such as the Forest Stewardship Act, Agricultural Development and Trade Act, National Forest-Dependent Rural Communities Economic Diversification Act, and the Global Climate Change Prevention Act. (18)

Fire Prevention All activities concerned with minimizing the incidence of wildfire. (18)

Fire Regime The characteristic frequency, extent, intensity, severity, and seasonality of fires in an ecosystem. (28)

Fluvial Pertaining to a river or stream. (Glossary of Geology)

Forest Canopy The cover of branches and foliage formed collectively by tree crowns. (15)

Forest Health See Ecosystem Health-applies to forest ecosystems. (18)

Forest Land Land at least 10 percent occupied by forest trees or formerly having had such tree cover and not currently developed for nonforest use. Lands developed for nonforest use include areas for crops, improved pasture, residential, or administrative areas, improved roads of any width, and adjoining road clearing and powerline clearing of any width. (FSM 1900). (19)

Forest Land Not Suitable for Timber Production Lands not selected for timber production in the Forest Plan alternative because of the fact that: (a) the multiple-use objectives for the alternative preclude timber production, (b) other management objectives for the alternative limit timber production activities to the point where it is not possible to meet management requirements set forth in 36 CFR 219.27; or (c) the lands are not cost-efficient, over the planning horizon, in meeting forest objectives that include timber production. In the preferred alternative and Forest Plan, designate lands not appropriate for timber production as unsuitable. (19)

Forest Management The practical application of scientific, economic, and social principals to the administration and working of a forest for specified objectives. (15)

Forest Pests Native, introduced, or exotic plants or animals that conflict with ecosystem sustainability and management objectives. (18)

Forest Plan (Forest Land and Resource Management Plan) A document which guides all natural resource management activity and establishes management standards and guidelines for a National Forest, embodying the provisions of the National Forest Management Act (1976). (22) (28) See also, Land Management Plan. (18)

Forest Trees Woody plants having a well-developed stem and usually more than 12 feet in height at maturity. (19)

Forest Type A category or class of forest defined by its vegetation (species composition) and/or locality. (15)

Fragmentation Breaking up of contiguous areas into progressively smaller patches of increasing degrees of isolation. (15)

Fuelwood Wood that is round, split, or sawn and/or otherwise generally refuse material cut into short lengths or chipped for burning. (19)

Function The flow of mineral nutrients, water, energy, or species. (22) (28)

GAP The GAP is a biological diversity inventory being conducted by the National Biological Survey. This inventory will provide scientific biological information to Federal, State, and local agencies for planning purposes. Gaps in ecological information are also being identified as part of this project. (18)

Geographic Information System (GIS) An organized collection of computer hardware, software, geographic data and personnel designed to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced information. (31)

Goods and Services The various outputs produced by forest and rangeland renewable resources. The tangible and intangible values of which are expressed in market and nonmarket terms. (11)

Grazing Allotment A designated area of land available for livestock grazing upon which a specified number and kind of livestock may graze for a certain period. (18)

Greenhouse Effect The sequence of phenomena comprising the absorption of solar radiation, its conversion and re-admission in the infrared, and the absorption of the radiation by atmospheric ozone, water vapor, and carbon dioxide, preventing its dissipation into space and resulting in a steady, gradual rise in the temperature of the atmosphere. (18)

Group Selection, Group Selection With Reserves see Regeneration Methods

Guilds A group of organisms that share a common food resource, nesting site, etc. (15, paraphrased)

Habitat The environment in which an organism lives. (10) (15) (28) (18)

Habitat Capability Capability of an area, given the conditions of topography, vegetation, water, and climate, to support a number of adult individuals of a species, subspecies, or group of species. (18)

Habitat Effectiveness Percentage of available habitat that is usable by deer or elk outside the hunting season. (16)

Habitat Type Place where an animal or plant normally lives, often characterized by a dominant plant form or physical characteristic. (22)

Hiding Cover Vegetation capable of hiding 90 percent of a standing adult elk from the view of a human at a distance equal to or less than 200 feet. (16)

Human Dimension An integral component of ecosystem management that recognizes people are part of ecosystems, that people's pursuits of past, present, and future desires, needs and values (including perceptions, beliefs, attitudes and values) have and will continue to influence

ecosystems and that ecosystem management must include consideration of the physical, emotional, mental, spiritual, social, cultural and economic well-being of people and communities. (21)

Indicator Species Species that indicate the presence of certain environmental conditions, seral stages, or previous treatment. One or more plant species selected to indicate a certain level of grazing use. (6)

Infrastructure The facilities, utilities, and transportation systems needed to meet public and administrative needs. (18)

Integrated Pest Management A process for selecting strategies to regulate a forest pest in which all aspects of a pest-host system are studied and weighed, including the impact on various resource values and the ecological acceptability of the strategy. (18)

Intermittent Stream Channel Any non-permanent flowing drainage feature having a definable channel and evidence of scour or deposition. This includes what are sometimes referred to as ephemeral streams if they meet these two criteria. (28)

Irregular Shelterwood Cut also Irregular Shelterwood Method, Preparatory, Seed Removal, and Final Irregular Shelterwood Removal Cut, see Two Aged.

Key Indicators Key indicators are specific items used for comparing the effects of a given alternative. They are selected based on their ability to show the level at which a given alternative is affecting the natural resources on the Forest. They are generally measurable directly/or may be estimated based on identified criteria.

Knutson-Vandenberg Funds (KV) Funds deposited by timber sale purchasers to the Federal Treasury. These funds are available to the Forest Service for wildlife and fisheries, timber, soil, air, and watershed restoration and enhancement projects, within the timber sale areas. These projects are approved prior to selling of the timber sales. Project approval is documented in timber sale area betterment plans. (18)

Land and Water Conservation Fund (LWCF) The goal of the LWCF Act of 1965 is to assist in preserving, developing, and assuring, accessibility to all citizens of the United States of America ... such quality and quantity of outdoor recreation resources as may be available and to strengthen the health and vitality of the citizens by providing funds for, and authorizing ... the federal acquisition and development of certain lands and other areas. (18)

Landscape A distinct association of land types that exhibit a unique combination of local climate, landform, topography, geomorphic process, surficial geology, soil, biota, and human influences. Landscapes are generally of a size that the eye can comprehend in a single view. (18)

Lease A mineral lease grants the right to extract and dispose of a specific mineral or minerals in lands covered by the lease, subject to various terms and conditions. (FSM 2800)

Leasable Minerals Those minerals designated under the Minerals Leasing Act of 1920. They include coal, phosphate, sodium, potassium, oil, oil shale, gas, and, in some cases sulphur. Geothermal resources were added to this list by the 1970 Geothermal Steam Act. (FSM 2800)

Linkages Route that permits movement of individual plant (by dispersal) and animals from a Landscape Unit and/or habitat type to another similar Landscape Unit and/or habitat type. (8) (15)

Livestock Management, Satisfactory Condition Satisfactory livestock management condition means the soil is adequately protected and that forage species, composition, and production are at or trending toward acceptable levels and meeting livestock forage objectives specified in an approved allotment management plan (AMP). Also includes and applies to wild horse and burro territory. (18)

Livestock Management, Unsatisfactory Condition Unsatisfactory livestock management condition means the soil is not adequately protected or the forage species, composition, and production are not at or trending toward acceptable levels for meeting livestock forage objectives. Also includes and applies to wild horse and burro territory. (18)

Locatable Minerals In general, the locatable minerals are those hardrock minerals which are mined and processed for the recovery of metals. They also may include certain nonmetallic minerals and uncommon varieties of mineral materials, such as valuable and distinctive deposits of limestone or silica, and may include any solid, natural inorganic substance occurring in the crust of the earth, except for the common varieties of mineral materials and leasable minerals. (FSM 2800)

Long-term Sustained Yield Capacity (LTSYC) The highest uniform wood yield from lands being managed for timber production that may be sustained, under a specified management intensity, consistent with multiple-use objectives. (FSM 1900). (19)

Management To treat with care, handle or direct with skill. (25)

Management Direction A statement of multiple-use and other goals and objectives, the management prescriptions, and the associated standards and guidelines for attaining them. (11)

Management Ignited Fire (MIF) A prescribed fire resulting from a planned, deliberate management action. (FSM 5105)

Matrix The most extensive and most connected landscape element type present which plays the dominant role in landscape functioning. Also, a landscape element surrounding a patch. (22)

Mature Forest Generally used in an economic sense to indicate that a forest has attained harvest age. (15)

Microsite A rock outcrop, snag, seep, stream pool, and other environmental features small in scale but unique in character. (8) (15)

Mineral Withdrawal Withholding an area of Federal land from location or entry under some the mining and mineral leasing laws, for the purpose of limiting activities under those laws in order to maintain other public values in the area, or for reserving the area for a particular public purpose or program. (FSM 2760)

Mode Value occurring most frequently in a series of observations. (22)

Monitoring The process of collecting information to evaluate if objective and anticipated or assumed results of a management plan are being realized or if implementation is proceeding as planned. (28)

Multi-Storied Forest stands that contain trees of various heights and diameter classes and therefore support foliage at various heights in the vertical profile of the stand. (28)

Multiple Use The management of the lands and their various resource values so they are utilized in the combination that best meets the present and future needs of the American people. (10) (15) (28)

Multiple Use-Sustained Yield Act (MUSYA) Authorizes and directs that the National Forests be managed under principles of multiple use for outdoor recreation, range, timber, watershed, and wildlife and fish purposes, and to produce a sustained yield of products and services, and for other purposes. This act does not affect the use or administration of the mineral resources of National Forest lands or the use or administration of Federal lands not within National Forests. (22)

Mycorrhiza The symbiotic association between certain fungi and plant roots which enhances the uptake of water and nutrients. (20)

National Environmental Policy Act (NEPA) Declared a national policy to "encourage productive and enjoyable harmony between man and his environment". NEPA and implementing regulations by the Council on Environmental Quality specify procedure for integrating environmental considerations into agency planning. (18)

National Forest Management Act (NFMA) An Act of Congress which provides guidelines for planning and management of the National Forests. (18)

National Forest System The term used to include the National Forests, National Grasslands, and other related lands that the Forest Service has administers responsibility. (18)

Natural Conditions Plant and animal communities where people have not directly impacted either the plant community or the soil by such activities as logging, grazing, or cultivation. Indirect activities, such as fire suppression and air quality are part of the current environment and part of natural succession. (24)

Nonchargeable Volume All volume not included in the growth and yield projections for the selected management prescriptions used to arrive at the allowable sale quantity. (19)

Nonforest Land Lands that never have had or that are incapable of having 10 percent or more of the area occupied by forest trees; or lands previously having such cover and currently developed for nonforest use. (19)

Nutrient Cycling Circulation or exchange of elements such as nitrogen and carbon between non-living and living portions of the environment. Includes all mineral and nutrient cycles involving mammals and vegetation. (28)

Objective A concise, time-specific statement of measurable planned results that respond to pre-established goals. An objective forms the basis for further planning to defining both the precise steps to be taken and the resources to be used in achieving identified goals. (18)

Off Highway Vehicle (OHV) Any self-propelled vehicle which is designed to travel on wheels or tracks in contact with the ground, which is designed primarily for use off of the public highways, and which is generally and commonly used to transport persons for recreational purposes. "Off-highway vehicle" does not include the following: (a) vehicles designed and used primarily for travel on, over, or in the water; (b) snowmobiles; (c) military vehicles; (d) golf carts; (e) vehicles designed and used to carry disabled persons; (f) vehicles designed and used specifically for agricultural, logging, or mining purposes; or (g) vehicles registered pursuant to article 3 of title 42, C.R.S. (Colorado Legislature House Bill No. 1329, signed into law by Roy Romer, June 7, 1989.)

Old-Growth Old-growth stands are a contiguous group of trees usually at least 180 200 years old with moderate to high canopy closure; a multi-layered multi-species canopy dominated by large overstory trees; a high incidence of large trees, some with large, broken tops and other

indications of old and decaying wood; numerous large snags; and heavy accumulations of wood, including large logs on the ground. Also see descriptions in Mehl 1992. (18) (38)

Organic Act The Organic Administration Act of 1897 specified the purposes for which forest reserves might be established and provided for their protection and management. (18)

Overstory Removal The cutting of trees comprising an upper canopy layer in order to release trees or other vegetation in an understory. See Clearcutting

Patch Ecosystem elements (e.g., areas of vegetation) that are relatively homogeneous internally and that differ from what surrounds them. (22) (28)

Patented Claim A claim for which title has passed from the Federal Government to the mining claimant. (FSM 2800)

Pattern The spatial arrangement of landscape elements (patches, corridors, matrix) which determines the function of a landscape as an ecological system. (22)

Perennial Stream Channel A stream that typically has running water on a year-round basis. (28)

Photosynthesis The conversion of light energy to chemical energy; the production of carbohydrates from carbon dioxide in the presence of chlorophyll by using light energy. (29)

Physical Environments Combinations of environmental factors to which the biota respond indirectly, e.g., elevation, landform, geological substrate, or soil type. (22)

Planning Horizon In the planning process, the overall time period that spans all activities covered in the analysis or plan and all future conditions and effects of proposed actions that would influence the planning decisions. (FSM 1900) or timber resource planning purposes, the overall time period shall extend far enough into the future so that it is possible to achieve and maintain the allowable sale quantity at the long-term sustained yield capacity. In some situations, this may require that the planning horizon be long enough to provide the opportunity to access all suitable lands. (19)

Plant Association A potential natural plant community of definite floristic composition and uniform appearance. (3) (28)

Population A group of individuals with common ancestry that are much more likely to mate with one another than with individuals from another such group. (15)(28)

Population Viability Probability that a population will persist for a specified period across its range despite normal fluctuations in population and environmental conditions. (28)

Potential Natural Community The biotic community that would be established if all successional sequences of its ecosystem were completed without additional human-caused disturbances under present environmental conditions. Grazing by native fauna, natural disturbances such as drought, floods, wildfire, insects, and disease, are inherent in the development of potential natural communities which may include naturalized non-native species. (3) (28)

Precommercial Thinning (PCT) A thinning that does not yield trees of commercial value, usually designed to reduce stocking in order to concentrate growth on the more desirable trees. (20)

Prescribed Burning (Prescribed Fire) A fire resulting from planned or unplanned ignition which is burning within acceptable ranges of a defined set of environmental parameters

including wind direction, humidity, temperature, wind speed, fuel moisture, and the limit of the geographical area to be covered. (18)

Prescribed Natural Fire (PNF) A fire resulting from a natural ignition that is designated and managed as a prescribed fire. (FSM 5105)

Present Net Value (PNV) The difference between the discounted value (benefits) of all outputs to which monetary values or estimated prices are assigned and the total discounted value costs of managing the planning area. PNV is calculated for management activities during the environmental analysis process for all alternative management proposals considered, and is a factor during alternative selection prior to management implementation. (18)

Process Change in state of an entity. (22)

Products All possible goods, services, and states that society desires from the ecosystem, including commodities; services, such as recreational opportunities and clean air; and states, such as attractive landscapes, and abstract entities, such as biological diversity. Production is the flow of products, as defined above. States result from ecosystem development processes and from management actions. (23)

Program Set of activities or projects with specific objectives, defined in terms of specific results and responsibilities for accomplishment. (18)

Province A continuous geographic area wherein species composition, both plant and animal, is more homogeneous than between adjacent areas. (8) (15) (28)

Range of Variability also known as Natural Variability, Historic Variability, or Range of Natural Variability. The observed limits of change in composition, structure, and function of an ecosystem over a specified period of time resulting from variations in the frequency, magnitude, and pattern of disturbances. (18)

Rangeland Land on which the native vegetation is predominantly grasses, grass-like plants, forbs, or shrubs suitable for grazing or browsing use. (18)

RARE II Areas Roadless areas inventoried in the second roadless area review and evaluation (36CFR 219.17). (18)

Recreation Opportunity Spectrum (ROS) see also ROS Class. A framework for stratifying and defining classes of outdoor recreation environments, activities, and experience opportunities. The settings, activities, and opportunities for obtaining experiences are arranged along a continuum or spectrum divided into six classes: primitive, semi-primitive nonmotorized, semi-primitive motorized, roaded natural, rural, and urban. (18)

Recreation Visitor Day Twelve visit hours, which may be aggregated continuously, intermittently, or simultaneously by one or more persons. (18)

Recruitment The addition to a population from all causes (i.e., reproduction, immigration, and stocking). Recruitment may refer literally to numbers born or hatched or to numbers at a specified stage of life such as breeding age or weaning age. (28)

Reforestation The natural or artificial restocking on an area with trees (synonym Regeneration). (20)

Regeneration Seedlings or saplings existing in a stand; or the act of establishing young trees naturally or artificially (synonym Reforestation). (20)

Regeneration (Reproduction) Method A cutting method by which a new age class is created. The major methods are Clearcutting, Seed Tree, Shelterwood, Selection, and Coppice (see Harvesting Method). (20)

Coppice Methods Methods of regenerating a stand in which the majority of regeneration is from stump sprouts or root-suckers. (20)

Coppice A method of regenerating a stand in which all trees in the previous stand are cut and the majority of regeneration is from sprouts or root suckers. (20)

Coppice With Reserves A coppice method in which reserve trees are retained to attain goals other than regeneration. The method normally creates a two-aged stand. (20)

Even-Aged Methods Methods to regenerate a stand with a single age class. (20)

Clearcutting A method of regenerating an even-aged stand in which a new age class develops in a fully exposed microclimate after removal, in a single cutting, of all trees in the previous stand. Regeneration is from natural seeding, direct seeding, planted seedlings, and/or advance reproduction. Cutting may be done in groups or patches (Group or Patch Clearcutting), or in strips (Strip Clearcutting). In the Clearcutting System, the management unit or stand in which regeneration, growth, and yield are regulated consists of the individual clearcut stand (see Group Selection). When the primary source of regeneration is advance reproduction, the preferred term is Overstory Removal. (20)

Clearcutting With Reserves see Two-Aged Methods

Seed Tree An even-aged regeneration method in which the new age class develops from seeds that germinate in fully exposed micro-environments after removal of all the previous stand except a small number of trees left to provide seed. Seed trees are removed after regeneration is established. (20)

Seed Tree With Reserves see Two Aged Methods

Shelterwood A method of regenerating an even-aged stand in which a new age class develops beneath the moderated micro-environment provided by the residual trees. The sequence of treatments can include three distinct types of cuttings: 1) an optional preparatory cut to enhance conditions for seed production; 2) an establishment cut to prepare the seed bed and to create a new age class; and 3) a removal cut to release established regeneration from competition with the overwood. Cutting may be done uniformly throughout the stand (Uniform Shelterwood), in groups or patches (Group Shelterwood), or in strips (Strip Shelterwood). (20)

Shelterwood With Reserves see Two-Aged Methods

Two-Aged Methods Methods designed to maintain and regenerate a stand with two age classes. In each case the resulting stand may be two-aged or tend towards an uneven-aged condition as a consequence of both an extended period

of regeneration establishment and the retention of reserve trees that may represent one or more age classes. (20)

Clearcutting With Reserves A clearcutting method in which varying numbers of reserve trees are not harvested to attain goals other than regeneration. (20)

Seed Tree With Reserves A seed Tree Method in which some or all of the seed trees are retained after regeneration has become established to attain goals other than regeneration. (20)

Shelterwood With Reserves A variant of the Shelterwood Method in which some or all of the shelter trees are retained, well beyond the normal period of retention, to attain goals other than regeneration. (20)

Irregular Shelterwood A variant of the shelterwood method in which the overwood is retained for a significant portion of the rotation. An irregular shelterwood method may include preparatory cuttings, seed cuttings, and removal cuttings as in even-aged shelterwood methods. The irregular shelterwood differs in that the final removal cut may occur later in the rotation or not at all. (20)

Uneven-Aged (Selection) Methods Methods of regenerating a forest stand, and maintaining an uneven-aged structure, by removing some trees in all size classes either singly, in small groups, or in strips. (20)

Group Selection A method of regenerating uneven-aged stands in which trees are removed, and new age classes are established, in small groups. The maximum width of groups is approximately twice the height of the mature trees, with small openings providing micro-environments suitable for tolerant regeneration and the larger openings providing conditions suitable for more intolerant regeneration. In the Group Selection System, the management unit or stand in which regeneration, growth, and yield are regulated consists of a landscape containing an aggregation of groups (see Clearcutting). (20)

Group Selection With Reserves A variant of the Group Selection Method in which some trees within the group are not cut to attain goals other than regeneration within the group. (20)

Single Tree Selection A method of creating new age classes in uneven-aged stands in which individual trees of all size classes are removed more-or-less uniformly throughout the stand to achieve desired stand structural characteristics. (20)

Regeneration (Reproduction) Period The time between the initial regeneration cutting and the successful re-establishment of a new age class by natural means, planting, or direct seeding. (20)

Regular Uneven-Aged (Balanced) Stand A stand in which three or more distinct age classes occupy approximately equal areas and provide a balanced distribution of diameter classes. (20)

Rehabilitation Returning of land to farm use or to productivity in conformity with a prior land use plan, including a stable ecological state that does not contribute substantially to environmental deterioration and is consistent with surrounding aesthetic values. (7)

Resilience The ability of an ecosystem to maintain diversity, integrity and ecological processes following disturbance. (21)

Resource value The value of an ecosystem for a particular use or benefit on an ecological type or plant association. The value may be expressed as an actual amount or a relative rating (i.e., good, fair, poor), when compared to the maximum value for an ecological type. The value of vegetation or other features for a particular use. Each use may have a separate resource value rating. The "desired plant community" to meet land use plans. (27)

Restoration Actions taken to modify an ecosystem in whole or in part to achieve a desired condition. (21)

Riparian Area Areas of the aquatic and riparian ecosystems with distinctive resource values and characteristics that can be geographically delineated. (FSM 2526)

Riparian Ecosystem A transition between the aquatic ecosystem and the adjacent terrestrial ecosystem; Identified by soil characteristics or distinctive vegetation communities that require free or unbound water. (FSM 2526)

Riparian Zone The banks and adjacent areas of water bodies, water courses, seeps and springs whose waters provide soil moisture sufficiently in excess of that otherwise available locally so as to provide a more moist habitat than that of contiguous flood plains and uplands. (5) (28)

Roads

Forest Arterial Road A Forest road that provides service to large land areas and usually connects with other arterial roads or public highways. (FSH 7709.54)

Forest Collector Road A Forest road that serves smaller land areas than an arterial road. Usually connects forest arterial roads to local forest roads or terminal facilities. (FSH 7709.54)

Forest Local Road A Forest road that connects terminal facilities with forest collector, forest arterial or public highways. Usually Forest local roads are single purpose transportation facilities. (FSH 7709.54)

Road Construction The building of new vehicular transportation facilities to a specific construction standard. Includes all new road construction regardless of functional classification, resource area served, or construction source. This includes roads constructed by timber purchasers, mineral claimants or lessees, and other permittees, as well as those constructed with appropriated funds- all of which become a part of the forest development road system. (18)

Road Reconstruction Rebuilding existing forest development roads to safe standards. (18)

Roadless Areas Undeveloped areas that meet eligibility criteria for wilderness consideration under the Wilderness Act. (36CFR 219.17) (18)

Roads Closed Forest development road system that is not continuously open to motor vehicles on a yearlong basis. (18)

ROS Class (12)

Primitive (ROS Class) setting is characterized by an unmodified environment of fairly large size (2,500 acres). Interaction between users is very low, and evidence of other users is minimal. The area is managed to be essentially free from evidence of human induced restrictions and controls. Motorized use within

the area is not permitted. There is an extremely high probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility, and self-reliance. The area offers a high degree of challenge and risk.

Roaded Modified (ROS Class) setting is a substantially modified natural environment. It is the direct result of intensive timber harvest, mining, or some other activity. User expectations for social and managerial settings, activities, and facilities are similar to those found in semi-primitive classes. Recreationists can expect to be able to get away from others to an areas with easy access. Opportunities to feel self-reliant in building their own campsite and using motorized equipment are critical. Feelings of independence and freedom from regulations and control are also important.

Roaded Natural (ROS Class) setting is characterized by a predominantly natural-appearing environment with moderate evidences of sights and sounds of humans. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate, but with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized use is provided for in construction standards and design of facilities. Challenge and risk opportunities associated with more primitive type recreation are not very important. Opportunities to have a high degree of interaction with the environment.

Rural (ROS Class) setting is characterized by substantially modified natural environment. Resource modification and utilization practices are to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident, and the interaction between users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Facilities are often provided for special activities. Moderate densities are provided far away from developed sites. Facilities for intensified motorized use and parking are available. Socialization with individuals and groups is prevalent, as is the convenience of sites and opportunities which are more important than the setting of the physical environment.

Semi-Primitive Motorized (ROS Class) setting is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle. Motorized use is permitted. There is a moderate probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility, and self-reliance.

Semi-Primitive Nonmotorized (ROS Class) setting is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Interaction between users is low but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle. Motorized use is not permitted. There is a high probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility, and self-reliance through the application of outdoor skills in an environment that offers challenge and risk.

Urban (ROS Class) setting is characterized by a substantially urban environment, and amenities, although the background may have natural appearing elements. Renewable resource modification and utilization practices are to enhance specific recreation activities (ski areas). Vegetative cover is often exotic and manicured. Sights and sounds on-site are predominant. Large numbers of users can be expected, both on-site and in nearby areas. Facilities for highly intensified motor use and parking are available with forms of mass transit often available to carry people throughout the site.

Rotation In even-aged systems, the period between regeneration establishment and final cutting. (20)

RPA Assessment An analysis of present and anticipated uses, demand for, and supply of renewable resources. The Assessment is prepared every 10 years in response to the Forest and Rangeland Renewable Resources Planning Act. (18)

Rural Development The utilization, protection, and enhancement of the natural, physical, and human resources needed to make long-term improvements in rural living conditions, provide jobs and income opportunities, and enrich cultural life while maintaining and protecting the environment of rural America. In the Forest Service, rural development is accomplished through the coordinated use of available human, technical, financial, and natural resources in partnership with national, State, and local entities on initiatives for improving the conditions for citizens of rural areas. (18)

Salvage Sale A salvage sale is timber sale where the primary reason for entry is that most of the trees are insect-infested or are dying or damaged, or the trees are dead standing or down, and they can still be useful as logs, firewood, or other wood products. Associated healthy trees in the stand can be removed to improve the whole stand, if it is efficient and desirable, in order to leave the stand in a healthier condition. (18)

Sapling A tree, usually young, that is larger than a seedling but smaller than a pole. Size varies by region. (20)

Satisfactory Livestock Forage Condition A condition in which the soil is adequately protected and the forage species composition and production meets forest plan objectives or the trend in forage species composition and production is acceptable. (39)

Sawtimber Trees containing at least one 8-foot sawlog and meeting regional specifications for freedom from defect. Softwood trees must be at least 8 inches in diameter at breast height (4.5 feet above the ground). (Forest Standards)

Scale The level of spatial resolution perceived or considered. Also, spatial proportion, or the ratio of length on a map to true length. (22) (21)

Security The protection inherent in any situation that allows elk to remain in a defined area despite an increase in stress or disturbance associated with the hunting season or other human activities. (16)

Security Area Any area that will hold elk during periods of stress because of geography, topography, vegetation, or a combination of those features. (16)

Seed Tree, Seed Tree With Reserves see Regeneration Methods

Selection Thinning see Thinning

Sensitive Species Selected plant and animal species for which population viability is a concern, as evidenced by significant current or predicted downward trends in population numbers or density, and significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution. Sensitive species are not included in the threatened and endangered species act. (18)

Seral A biotic community which is a developmental, transitory stage in an ecologic succession. (1)

Sere The series of stages that follow one another in an ecologic succession; a series of biotic communities that follow one another in time on any given area of the earth's surface. (1)

Severely Burned Soil The condition where most woody debris and the entire Forest floor is consumed down to bare mineral soil. Soil may have turned red due to extreme heat. Also, fine roots and organic matter are charred in the upper one-half inch of mineral soil. (FSH 2509.18)

Shade Tolerance The relative capacity of a plant to become established and grow beneath overtopping vegetation. (20)

Shelterwood, Shelterwood With Reserves see Regeneration Methods

Silviculture The art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands to meet the diverse needs and values of landowners and society on a sustainable basis. (20)

Silvicultural System A planned process whereby a stand is tended, harvested, and re-established. The system name is based on the number of age classes (see Even-Aged, Two-Aged, Uneven-Aged), and/or the regeneration method used (see Clearcutting, Seed Tree Shelterwood, Selection, Coppice, Coppice With Reserves). (20)

Single Tree Selection see Regeneration Methods

Site The classification of land area based on its climate, physiographic (physical geography), edaphic (soil), and biotic factors that determine its suitability and productivity for particular species and silvicultural alternatives. (9)

Site Index A measurement of actual or potential forest productivity expressed in terms of the average height of a certain number of dominants and codominants in the stand at an index age. (20)

Site Preparation A hand or mechanized manipulation of a site designed to enhance the success of regeneration. Treatments may include bedding, burning, chemical spraying, chopping, disking, drainage, raking, and scarifying. All treatments are designed to modify the soil, litter, vegetation and to create microclimate conditions conducive to the establishment and growth of desired species. (20)

Size Class Tree size recognized by distinct ranges, usually of diameter or height. (20)

Snag A standing dead tree from which the leaves and most of the branches have fallen. (20)

Soil Productivity The inherent capacity of a soil for supporting growth of specified plants, plant communities, or sequence of plant communities. (FSM 2520)

Species (Biological) Reproductively isolated systems of breeding populations; (Successional) Distinctly different appearing assemblages of organisms as a consequence of species transformation; (Taxonomic) Phenotypically distinctive groups of coexisting organisms; (Microspecies) Asexually reproducing organisms, mainly bacteria, sharing a common

morphology and physiology; (Biosystematic) Populations that are isolated by ecological factors rather than ethological isolation. (26) (28)

Stand A contiguous group of trees sufficiently uniform in age class distribution, composition, and structure, and growing on a site of sufficiently uniform quality, to be a distinguishable unit (see Mixed, Pure, Even-Aged and Uneven-Aged Stands). (20)

Mixed Stand A stand in which there is a mixture of species. (20)

Pure Stand A stand composed of essentially a single species. (20)

Stratified Mixture A stand in which different species occupy different strata of the total crown canopy. (20)

Stand Composition The proportion of each tree species in a stand expressed as a percentage of either the total number, basal area, or volume of all tree species in the stand. (20)

Stand Density A quantitative, absolute measure of tree occupancy per unit of land area in such terms as numbers of trees, basal area, or volume. (20)

Stand Improvement A term comprising all intermediate cuttings made to improve the composition, structure, condition, health, and growth of even-aged or uneven-aged stands. (20)

Stand Structure The physical and temporal distribution of plants in a stand. (22)

Stocking An indication of growing-space occupancy relative to a pre-established standard. Common indices of stocking are based on percent occupancy, basal area, relative density, and crown competition factor. (20)

Stream Reach Those components of valley segments that reflect unique channel morphological characteristics, stream size, discharge, flow duration, gradient, channel pattern, and stream type. (IRI handbook 1/27/95)

Structure The horizontal and vertical distribution of components of a forest stand including the height, diameter, crown layers and stems of trees, shrubs, herbaceous understory, snags, and down woody debris. (20)

Structural Stages (Wildlife Habitat Structural Stages) Any of several developmental stages of tree stands described in terms of tree age (size), and the extent of canopy closure they create. (34)

Subclimax The stage in both primary and secondary seres that immediately precedes the climax. An imperfect stage of development, in which the vegetation is held indefinitely either by natural or artificial factors other than climate, such as grazing, burning, cutting, etc. (30)

Succession A series of dynamic changes by which organisms succeed one another through a series of plant community (seral) stages leading to potential natural community or climax. (20)

Succession (Ecological) A process of community development that involves changes in species structure and community processes over time. (9) (15)

Successional Stage One in a series of usually transitory communities or developmental stages that occur on a particular site or area over a period of time. (9) (15) (28)

Suitable Forest Land Land to be managed for timber production on a regulated basis. (19)

Sustainability A concept which reflects the capacity of a dynamic ecosystem to maintain its composition, function, and structure over time thus maintaining the productivity of the land and a diversity of plants and animals. (18)

Terrestrial Ecosystem A land based ecosystem. (See ecosystem). An interacting system of soil, geology, topography with plant and animal communities. (2)

Thinning A cultural treatment made to reduce stand density of trees primarily to improve growth, enhance forest health, or to recover potential mortality. (20)

Crown Thinning (Thinning From Above, High Thinning) The removal of trees from the dominant and codominant crown classes in order to favor the best trees of those same crown classes. (20)

Free Thinning The removal of trees to control stand spacing and favor desired trees using a combination of thinning criteria without regard to crown position. (20)

Low Thinning (Thinning From Below) The removal of trees from the lower crown classes to favor those in the upper crown classes. (20)

Mechanical Thinning (Geometric Thinning) The thinning of trees in either even- or uneven-aged stands involving removal of trees in rows, strips, or by using fixed spacing intervals. (20)

Selection Thinning (Dominant Thinning) The removal of trees in the dominant crown class in order to favor the lower crown classes. (20)

Thinning Interval The period of time between successive thinning entries, usually used in connection with even-aged stands (see Cutting Cycle). (20)

Threatened Species Any species of animals or plants listed as "threatened" by the U.S. Fish and Wildlife Service and likely to become an endangered species within the foreseeable future throughout all or part of its range. (18)

Threshold The boundary between ecological states that, once crossed, is not easily reversible and results in the loss of capacity to produce commodities and satisfy values. (27)

Timber Production The purposeful growing, harvesting, and regeneration of regulated crops of trees for cutting into logs, bolts, or other round sections for industrial or consumer use. For purposes of Forest Planning, timber production does not include fuelwood or harvests from unsuitable lands. (FSM 1900) (19)

Tolerance The point beyond which there is high risk that potential may be permanently, impaired through changes in specified physical, chemical and biological factors brought about by management activities or natural events. (FSM 2520)

Travelway A way for passage of vehicles, conveyances, person, or domestic livestock (stock driveways), developed by construction or use; may be referred to as a road or trail. (40)

Two-Aged Method(s) see Regeneration Method. (20)

Two-Aged Stand A stand composed of two distinct age classes that are separated in age by more than 20 percent of rotation. (20)

Two-Aged System A planned sequence of treatments designed to maintain and regenerate a stand with two age classes. (20)

Uneven-Aged Management The application of a combination of actions needed to simultaneously maintain continuous high-forest cover, recurring regeneration of desirable species, and the orderly growth and development of trees through a range of diameter or age classes. (33)

Uneven-Aged Selection Methods see Regeneration Method. (20)

Uneven-Aged Stand A stand with trees of three or more distinct age classes, either intimately mixed or in small groups. (20)

Uneven-Aged System A planned sequence of treatments designed to maintain and regenerate a stand with three or more age classes (see Single Tree Selection, Group Selection). (20)

Unsuitable Forest Land (Not Suited) Forest land not managed for timber production because: (a) Congress, the Secretary, or the Chief has withdrawn it; (b) it is not producing or capable of producing crops of industrial wood; (c) technology is not available to prevent irreversible damage to soils productivity, or watershed conditions; (d) there is no reasonable assurance based on existing technology and knowledge, that it is possible to restock lands within 5 years after final harvest, as reflected in current research and experience; (e) there is, at present, a lack of adequate information about responses to timber management activities; or (f) timber management is inconsistent with or not cost efficient in meeting the management requirements and multiple-use objectives specified in the Forest Plan. (19)

Utility Corridor A designated parcel of land, either linear or areal in character, which has ecological, technical, economic, social, or similar advantages over other areas for the present and future location of transportation and/or utility rights of way within its boundaries. Utilities include but are not limited to major energy and telecommunications facilities.

Viability The likelihood of continued existence in an area for a specified period of time. (10) (15)

Visual Quality Objectives (VQOs) A desired level of excellence based on physical and sociological characteristics of an area. Refers to degree of acceptable alteration of the characteristic landscape. (35) Visual Quality Objectives include:

Maximum Modification Activity may dominate the characteristic landscape but should appear as a natural occurrence when viewed as background.

Modification Activity may dominate the characteristic landscape but must, at the same time, utilize naturally established form, line, color, and texture. It should appear as a natural occurrence when viewed in foreground or middleground.

Partial Retention Activities may be evident but must remain subordinate to the characteristic landscape.

Preservation Provides for ecological change only.

Retention Activities are not evident to the casual forest visitor.

Water Rights A State controlled legal right to use the water of a natural stream or water furnished through a ditch, pipe or delivery system for general or specific purposes, such as irrigation, mining, power, or domestic use, either to its full capacity or to a measured extent or defined portion of time. (18)

Watershed The drainage basin contributing water, organic matter, dissolved nutrients, and sediments to a stream or lake. (18)

Watershed Analysis A systematic procedure for characterizing watershed and ecological processes to meet specific management and social objectives. Watershed analysis is a stratum of ecosystem management planning applied to watersheds of approximately 20 to 200 square miles. (18)

Watershed Condition Classes A relative description of the health of a watershed as measured against management objectives in terms of the factors that affect favorable conditions of water flow and soil capability. National Forest System watersheds range in size from approximately 40,000 to 180,000 acres. Each watershed is assigned to one of the three following watershed condition classes: (18)

Class I Watersheds that provide a robust basis for sustained production of goods and services. The watershed management is such that no long-term changes are occurring even with major storms. Risks of management-induced deterioration in watershed condition are very low. These watersheds represent an attainable, desirable condition. They are in dynamic equilibrium as evidenced by a stable drainage network. The response to use is accommodated by the current channel network density size and process.

Class II Watersheds that are not attaining the requirements for Class I but do not require capital investment to restore watershed conditions. Watershed conditions can be improved to Class I levels through integrated multiple-use management. This class includes watersheds where extensive land-disturbing activities are occurring or are scheduled for the near future. Class II watersheds may also include sensitive watersheds that, when subjected to impacts, can quickly fall to Class III conditions.

Class III Watersheds that require technological and economically feasible capital investments to restore watershed conditions to a level consistent with management goals. Determination of feasibility must also consider environmental, social, and economic desirability. These land treatments and structural measures are necessary to provide an improved watershed equilibrium that can then enable management, through integrated multiple-resource activities, to attain watershed condition goals.

Wetlands Areas that are inundated by surface water or ground water with a frequency sufficient to support, and under normal circumstances do or would support, a prevalence of vegetative or aquatic life that require saturated or seasonally saturated soil conditions for growth and reproduction. (18)

Wilderness Act of 1964 Establishes a National Wilderness Preservation System to be composed of Federally owned areas designated by Congress as wilderness areas, and these shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness. (22)

Wilderness Area An area of undeveloped Federal land that Congress designated as wilderness and that retains its primeval character and influence, without permanent improvements or human habitation, and is protected and managed to preserve its natural conditions. An area that 1) generally appears to have been affected primarily by the forces of

nature, with the imprint of man's work substantially unnoticeable; 2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; 3) comprises at least 5,000 acres of land or is of sufficient size to make practicable its preservation and use in an unimpaired condition; and 4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value (Wilderness Act, 1964). (18)

Wildlife Habitat Structural Stage See structural stages.

Winter Range The area, usually at lower elevations, used by deer and elk during the winter months. (16)

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20. Terms/definitions with this reference are the product of a national task force established by the SAF (Society of American Foresters) and the Timber Management group U.S. Forest Service Washington Office, to address the need for consistent and accurate reporting of silvicultural activities on National Forests. They were initially published in SAF Silviculture Working Group Newsletter, dated October 1993, and were updated as of September, 1994. They have been included here for the readers convenience. These definitions are presently in draft form and, if adopted, will soon be published by the SAF

in final form, possibly after the publication of the DEIS. If any changes are needed prior to publication of the FEIS, they will be made at that time.

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